WHAT IS CLAIMED:

1. A method of controlling a vehicle braking event, comprising the steps of:

detecting a vehicle braking event in which brake force is applied to at least one vehicle drive wheel; and,

reducing an amount of torque transmitted from the at least one drive wheel to a vehicle powertrain when a braking event is detected.

2. The method of claim 1, wherein the detecting step comprises sensing an application of one or more vehicle brakes.

3. The method of claim 1, wherein the detecting step comprises sensing a speed of the drive wheel.

4. The method of claim 1, wherein the detecting step comprises sensing an operating condition of the vehicle indicating that a braking event will be initiated.

5. The method of claim 1, wherein the detecting step comprises sensing when an automatic braking system on the vehicle is actuated.

6. The method of claim 1, wherein the detecting step comprises sensing the application of a preselected level of torque to at least one component of the powertrain during the braking event.

7. The method of claim 1, wherein the reducing step comprises disconnecting the drive wheel from the powertrain.

8. The method of claim 1, wherein the detecting step comprises sensing an operating condition of the vehicle indicating a rapid deceleration of the drive wheel.

9. The method of claim 1, wherein the reducing step comprises actuating a clutch.

10. The method of claim 9, wherein actuating the clutch comprises allowing the clutch to slip such that only part of the torque applied to the powertrain by the drive wheel is reduced.

11. The method of claim 9, wherein actuating the clutch comprises disconnecting the drive wheel from the powertrain.

12. The method of 9, wherein actuating the clutch comprises disconnecting the drive wheel from a portion of the powertrain.

13. The method of claim 7, further comprising the step of reconnecting the drive wheel to the powertrain after the braking event is ended.

14. The method of 13, wherein reconnecting the drive wheel comprises:

comparing a speed of the drive wheel with a speed of the powertrain,

adjusting the speed of the powertrain to a preselected range based in part on the drive wheel speed.

15. A method for controlling a hybrid vehicle powertrain system during a braking event, comprising the step of at least partially disengaging the powertrain from a drive wheel driven by the powertrain when the torque applied to the powertrain by the drive wheel reaches a preselected level.

16. The method of claim 15, further comprising the step of sensing a level of torque applied to the powertrain by the drive wheel.

17. The method of claim 15, wherein the disengaging step comprises actuating a clutch.

18. The method of claim 17, wherein actuating the clutch comprises slipping the clutch so as to only partially disengage the powertrain from the drive wheel.

19. The method of claim 17, wherein the clutch is actuated in a manner to completely disengage the powertrain from the drive wheel.

20. The method of claim 15, further comprising the step of re-engaging the drive wheel with the powertrain after the braking event has ended.

21. The method of claim 20, wherein re-engaging the drive wheel comprises:

comparing a speed of the drive wheels with the speed of the powertrain; and,

adjusting a speed of the powertrain to a preselected range based at least in part on the drive wheel speed.

22. A drive system for a vehicle, comprising:

a powertrain having at least one electric drive motor, a driveline, and a geared transmission connecting the drive motor with the driveline;

a torque splitting device connected with the driveline;

a pair of drive shafts connected with and receiving torque from the torque slitting device;

a pair of wheels respectively connected with and driven by the drive shafts; and,

a device automatically actuated by a vehicle braking event for limiting the torque applied to the powertrain as a result of braking torque applied to the wheels.

23. The drive system of claim 22, wherein the torque limiting device comprises a clutch.

24. The drive system of claim 23, wherein the clutch is operative to disconnect the wheels from the powertrain during the braking event.

25. The drive system of claim 23, wherein the clutch comprises a slip clutch operative to allow only a portion of the torque produced by the wheels to be transmitted to the powertrain.

26. The drive system of claim 23, wherein the clutch is connected between the torque splitting device and the driveline.

27. The drive system of claim 23, wherein the clutch is connected between the torque splitting device and the wheels.

28. The drive system of claim 23, wherein the clutch is connected between the driveline and the electric drive motor.

29. The drive system of claim 23, further comprising a second electric drive motor, and wherein the torque limiting device includes a clutch coupled between the wheels and the combination of the first and second electric drive motors.

30. The drive system of claim 23, further comprising a second electric drive motor, and wherein the torque limiting device includes a clutch coupled between the second electric drive motor and the torque splitting device.

31. The drive system of claim 23, wherein the clutch comprises engageable friction discs.

32. The drive system of claim 22, wherein the torque limiting device comprises a transmission control device for causing the transmission to disconnect the driveline from the motor.

33. The drive system of claim 22, wherein the transmission control device comprises a brake for locking a gear in the transmission against rotation.

34. The drive system of claim 22, wherein the transmission comprises a planetary gear set and a brake for locking one of the gears in the gear set against rotation, thereby disconnecting the driveline from the electric motor.

35. A hybrid vehicle, comprising:

an internal combustion engine;

an electric drive motor;

a pair of driven traction wheels;

a driveline connecting the traction wheels with the combination of the internal combustion engine and the electric drive motor;

a vehicle braking system for applying a brake force to the traction wheels during a braking event; and,

a control system for controlling the torque transmitted from the traction wheels through the driveline during a sudden braking event.

36. The vehicle of claim 35, wherein the control system comprises a clutch for at least partially disengaging the traction wheels from at least one of the driveline, the engine and the motor.

37. The vehicle of claim 36, wherein the control system comprises:

at least one sensor producing a signal indicting the occurrence of a sudden braking event; and,

a controller responsive to the sensor signal for actuating the clutch.

38. The vehicle of claim 37, wherein the sensor senses the speed of the traction wheels.

39. The vehicle of claim 36, wherein the control system comprises:

a sensor for sensing a speed of the driveline;

a sensor for sensing a speed of the traction wheels; and,

a motor for changing the speed of the driveline to a preselected value based at least in part on the sensed wheel speed.

40. The vehicle of claim 35, wherein:

the driveline comprises a set of differential gears, and

the clutch is connected between the electric drive motor and the differential gear set.

41. The vehicle of claim 35, wherein:

the driveline comprises a set of differential gears, and

the clutch is connected between the differential gear set and the combination of the electric drive motor and the engine.

42. The vehicle of claim 35, wherein:

the driveline comprises a set of differential gears, and

the clutch is connected between the differential gear set and the traction wheels.

43. The vehicle of claim 36, wherein the clutch comprises a friction clutch allowing slippage to transfer only a portion of the torque from the traction wheels to the driveline.